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(54) Title: METHODS AND COMPOSITIONS FOR TREATING TISSUE DEFECTS USING PULSED ELECTROMAGNETIC FIELD STIMULUS

(57) Abstract: Methods of enhancing cell proliferation in tissue cultures and at the site of tissue defects in human or other animal subjects, comprising the steps of: (a) culturing a living tissue in a medium to form a tissue culture; (b) subjecting said tissue culture to an electromagnetic field; (c) extracting said medium from said tissue culture; and (d) administering said medium to the site of said tissue defect. Preferably, the tissue culture comprises endothelial cells. The present invention also provides compositions for the treatment of tissue defects in a human or other animal subject, comprising a safe and effective amount of a medium produced by electromagnetic stimulation of a tissue culture. Preferably, the compositions comprise a pharmaceutically acceptable carrier, such as hyaluronic acid, gelatin, collagen, cellulose ether, and osteoconductive carriers.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 C12N5/00 C12N13/00 A61K35/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 C12N A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, MEDLINE, BIOSIS, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No:
X	KIPSHIDZE N ET AL: "Low-power helium: neon laser irradiation enhances production of vascular endothelial growth factor and promotes growth of endothelial cells in vitro." LASERS IN SURGERY AND MEDICINE. UNITED STATES 2001, vol. 28, no. 4, 2001, pages 355-364, XP001091367 ISSN: 0196-8092 abstract page 356, column 2, paragraph 1 - paragraph 2 page 358, column 1, last paragraph -page 359, column 2, last paragraph page 361, column 2	6-8
Y	----- -/-	1,9

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Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	NICOLSON G L ET AL: "EFFECTS OF GAMMA IRRADIATION ON CULTURED RAT AND MOUSE MICROVESSEL ENDOTHELIAL CELLS METASTATIC TUMOR CELL ADHESION SUBENDOTHELIAL MATRIX DEGRADATION AND SECRETION OF TUMOR CELL GROWTH FACTORS" CLINICAL AND EXPERIMENTAL METASTASIS, vol. 9, no. 5, 1991, pages 457-468, XP001091368 ISSN: 0262-0898 abstract page 460, paragraph 2 page 463, paragraph 1 ---	6,8
Y	WO 99 50391 A (LATOUR NATHALIE ;BARTHOLEYN S JACQUES (FR); IDM IMMUNO DESIGNED MOL) 7 October 1999 (1999-10-07) page 3, line 22 -page 16, line 3 page 19, line 6 -page 20, line 16 ---	1,9
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INTERNATIONAL SEARCH REPORT

Information on patent family members

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